

ABSTRACT OF THE DISCLOSURE

A novel integral image recognition/display apparatus includes a pixel matrix, an image sensor and peripheral driving circuits for driving them, has both image recognition function and display function, and is constituted into an "intelligent" configuration. This display apparatus includes a plurality of pixel portions each having an active device and arranged in matrix, an active matrix substrate using an electrode for the pixel portion and a plurality of sensor portions arranged in matrix on the active matrix substrate, wherein the sensor portion has a photoelectric conversion device, and reads information by utilizing the rays of light transmitting through the light-transmitting material when an external image is read.